



GE Nuclear Energy

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MFN 04-022

Project 717

March 1, 2004

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20852-2738

Attention: Chief, Information Management Branch
Program Management
Policy Development and Analysis Staff

Subject: **Response to Request for Additional Information (RAI) number 183 for
ESBWR Pre-application Review - Supplementary Information**

To address the concerns expressed by the NRC staff regarding the long-term water level for the Bottom Drain Line (BDL) break, GE is planning the activities described below.

Our design criteria is for the GDCS pools and lower drywell (LDW) to be sized such that the drywell can be flooded to the top of active fuel for all break and single failure combinations. At this time, we have not finalized the configuration (sizing) of the LDW. The interim LDW configuration used in the previous TRACG basedecks which have been submitted did not satisfy the above sizing criteria. Our initial intention was to leave finalization of the LDW sizing as a certification phase activity. However, after discussing the issue with the NRC staff we are planning to revise the TRACG input decks to meet the stated design criteria now. Because the final configuration of the LDW will not be determined until our reference design update is completed later this year, we are planning to modify the TRACG model by decreasing the diameter of the LDW to address the design criteria. The final configuration to meet the design criteria will be determined after considering structural analyses, severe accident mitigation, arrangement issues and other design features later this year.

The basedecks for the BDL break presented in the response to RAI 183 (Reference) are contained on the CD which accompanies this package (Enclosure 1). Table 1 summarizes the information contained on the CD. In the next couple of weeks, we plan to submit a revised response to RAI

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183 based on the revised LDW volume as described above. The submittal will include the results for a 72 hour run and the revised TRACG input decks used to run the case.

Table 2.4-2 of the report, "TRACG Application for ESBWR, NEDC-33083P," shows the minimum water level for a spectrum of break locations and single failures. We intend to rerun this spectrum of cases for both the short and long term (72 hours) and present any differences in minimum water levels achieved using the revised lower drywell volume. The change in LDW volume is expected to have a negligible impact on the short term results. We will do these calculations with the final TRACG04 code version. We will submit the results with the other confirmatory TRACG04 results to support the FSER.

Enclosure 1 (CD) contains the basedecks for the BDL break presented in the response to RAI 183 and is designated as GE proprietary information as defined by 10CFR2.790. GE customarily maintains this information in confidence and withholds it from public disclosure. Enclosure 1 is entirely proprietary and a non proprietary version is not available.

The affidavit contained in Enclosure 2 identifies that the information contained in Enclosure 1 has been handled and classified as proprietary to GE. GE hereby requests that the information of Enclosure 1 be withheld from public disclosure in accordance with the provisions of 10 CFR 2.790 and 9.17.

If you have any questions about the information provided here, please let me know.

Sincerely,

Handwritten signature of Robert E. Gamble in cursive, followed by the word "for" in a smaller, simpler font.

Robert E. Gamble
Manager, ESBWR

Reference:

MFN 03-079, Letter From Atam S. Rao (GE) to NRC, August 22, 2003, SUBJECT: RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION (RAI) NUMBERS (161, 162, 164, 176, 183, 184, 286, 292, 293, 295, 301, 323, 325, 339, and 382) FOR ESBWR PRE-APPLICATION REVIEW

Enclosures

1. CD- MFN 04-022 - Response to Request for Additional Information (RAI) number 183 - Supplementary Information – GE Proprietary Information
2. Affidavit, George B. Stramback, dated March 1, 2004

cc: A. Cabbage USNRC (with enclosures)
J. Lyons USNRC (w/o enclosure)
G.B. Stramback - GE (with enclosures)

Table 1

Supplemental Information on RAI 183

The basedecks for the BDLB transient calculation are enclosed in the attached CD.

The basedecks and files included in the attached CD are summarized in the following table.

Item #	File name	Description
1	BDL_NSS27.INP	Steady-state input deck (ASCII file) for BDL transient.
2	BDL_A9.INP	Input deck (ASCII file) for the BDL transient calculation. The transient calculation restarts from the end of steady-state run "BDL_NSS27".
3	BDL_A9.OUT	Output file (ASCII file) for the BDL transient calculation.
4	BDL_NSS27-input.pdf	PDF file format of Item #1, with page header "GE PROPRIETARY INFORMATION".
5	BDL_A9-input.pdf	PDF file format of Item #2, with page header "GE PROPRIETARY INFORMATION".
6	BDL_A9-output.pdf	PDF file format of Item #3, with page header "GE PROPRIETARY INFORMATION".

General Electric Company

AFFIDAVIT

I, **George B. Stramback**, state as follows:

- (1) I am Manager, Regulatory Services, General Electric Company ("GE") and have been delegated the function of reviewing the information described in paragraph (2) which is sought to be withheld, and have been authorized to apply for its withholding.
- (2) The information sought to be withheld is contained in the Enclosure 1 of GE letter MFN 04-022, Robert E. Gamble to NRC, *Response to Request for Additional Information (RAI) number 183 for ESBWR Pre-application Review – Supplementary Information*, dated March 1, 2004. The proprietary information is in Enclosure 1 (CD), *Response to NRC RAI number 183 – Supplementary Information*. The data contained on the CD is entirely proprietary.
- (3) In making this application for withholding of proprietary information of which it is the owner, GE relies upon the exemption from disclosure set forth in the Freedom of Information Act ("FOIA"), 5 USC Sec. 552(b)(4), and the Trade Secrets Act, 18 USC Sec. 1905, and NRC regulations 10 CFR 9.17(a)(4), and 2.790(a)(4) for "trade secrets" (Exemption 4). The material for which exemption from disclosure is here sought also qualify under the narrower definition of "trade secret", within the meanings assigned to those terms for purposes of FOIA Exemption 4 in, respectively, Critical Mass Energy Project v. Nuclear Regulatory Commission, 975F2d871 (DC Cir. 1992), and Public Citizen Health Research Group v. FDA, 704F2d1280 (DC Cir. 1983).
- (4) Some examples of categories of information which fit into the definition of proprietary information are:
 - a. Information that discloses a process, method, or apparatus, including supporting data and analyses, where prevention of its use by General Electric's competitors without license from General Electric constitutes a competitive economic advantage over other companies;
 - b. Information which, if used by a competitor, would reduce his expenditure of resources or improve his competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing of a similar product;
 - c. Information which reveals aspects of past, present, or future General Electric customer-funded development plans and programs, resulting in potential products to General Electric;

- d. Information which discloses patentable subject matter for which it may be desirable to obtain patent protection.

The information sought to be withheld is considered to be proprietary for the reasons set forth in paragraphs (4)a., and (4)b, above.

- (5) To address 10 CFR 2.790 (b) (4), the information sought to be withheld is being submitted to NRC in confidence. The information is of a sort customarily held in confidence by GE, and is in fact so held. The information sought to be withheld has, to the best of my knowledge and belief, consistently been held in confidence by GE, no public disclosure has been made, and it is not available in public sources. All disclosures to third parties including any required transmittals to NRC, have been made, or must be made, pursuant to regulatory provisions or proprietary agreements which provide for maintenance of the information in confidence. Its initial designation as proprietary information, and the subsequent steps taken to prevent its unauthorized disclosure, are as set forth in paragraphs (6) and (7) following.
- (6) Initial approval of proprietary treatment of a document is made by the manager of the originating component, the person most likely to be acquainted with the value and sensitivity of the information in relation to industry knowledge. Access to such documents within GE is limited on a "need to know" basis.
- (7) The procedure for approval of external release of such a document typically requires review by the staff manager, project manager, principal scientist or other equivalent authority, by the manager of the cognizant marketing function (or his delegate), and by the Legal Operation, for technical content, competitive effect, and determination of the accuracy of the proprietary designation. Disclosures outside GE are limited to regulatory bodies, customers, and potential customers, and their agents, suppliers, and licensees, and others with a legitimate need for the information, and then only in accordance with appropriate regulatory provisions or proprietary agreements.
- (8) The information identified in paragraph (2), above, is classified as proprietary because it details for licensing application of TRACG to the ESBWR passive safety system design of the BWR. This TRACG code has been developed by GE for over fifteen years, at a total cost in excess of three million dollars. The reporting, evaluation and interpretations of the results, as they relate to the ESBWR, was achieved at a significant cost, to GE.

The development of the evaluation process along with the interpretation and application of the analytical results is derived from the extensive experience database that constitutes a major GE asset.

- (9) Public disclosure of the information sought to be withheld is likely to cause substantial harm to GE's competitive position and foreclose or reduce the availability of profit-making opportunities. The information is part of GE's comprehensive BWR safety and technology base, and its commercial value extends

beyond the original development cost. The value of the technology base goes beyond the extensive physical database and analytical methodology and includes development of the expertise to determine and apply the appropriate evaluation process. In addition, the technology base includes the value derived from providing analyses done with NRC-approved methods.

The research, development, engineering, analytical and NRC review costs comprise a substantial investment of time and money by GE.

The precise value of the expertise to devise an evaluation process and apply the correct analytical methodology is difficult to quantify, but it clearly is substantial.

GE's competitive advantage will be lost if its competitors are able to use the results of the GE experience to normalize or verify their own process or if they are able to claim an equivalent understanding by demonstrating that they can arrive at the same or similar conclusions.

The value of this information to GE would be lost if the information were disclosed to the public. Making such information available to competitors without their having been required to undertake a similar expenditure of resources would unfairly provide competitors with a windfall, and deprive GE of the opportunity to exercise its competitive advantage to seek an adequate return on its large investment in developing these very valuable analytical tools.

I declare under penalty of perjury that the foregoing affidavit and the matters stated therein are true and correct to the best of my knowledge, information, and belief.

Executed on this 1st day of March 2004


George B. Stramback
General Electric Company